

WHAT IS CLAIMED IS:

1. A relief valve comprising:
 - a valve housing in which a valve hole is disposed along an axis;
 - a valve seat member fitted and fixed to an opening end portion
 - 5 of the valve hole, and in which pressurized oil discharged from a hydraulic pump is introduced to one end portion of a communication hole penetrating along an axis, a valve seat being formed in another end portion;
 - a ball brought into contact with the valve seat so as to close the
 - 10 communication hole;
 - a ball receiver holding the ball and slidably supported along an inner surface of the valve hole;
 - a relief spring energizing the ball receiver in a direction in which the ball is brought into contact with the valve seat; and
 - 15 a relief hole relieving the pressure oil at the time of relieving the oil pressure, the relief hole being open in a radial direction of the valve hole,
 - wherein an elastic body seal is provided so as to be sealed in an annular gap between the ball receiver and the valve hole, the relief
 - 20 valve being slidably in contact with at least one of an outer periphery of the ball receiver and an inner periphery of the valve hole such that the elastic body seal is not compressed in an axial direction of the ball receiver.
- 25 2. A relief valve according to claim 1, wherein the elastic body seal is borne to a side of the ball receiver.

3. A relief valve according to claim 2, wherein the elastic body seal is borne to a spring receiver for a relief spring which is brought into contact with the ball receiver so as to be aligned in an axial direction.
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4. A relief valve according to claim 1, wherein the elastic body seal comprises an oil seal.
5. A relief valve according to claim 2, wherein the elastic body seal comprises an oil seal.
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6. A relief valve according to claim 3, wherein the elastic body seal comprises an oil seal.
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7. A relief valve according to claim 4, wherein the oil seal is provided with a seal lip in an outer periphery of a cored bar.
8. A relief valve according to claim 5, wherein the oil seal is provided with a seal lip in an outer periphery of a cored bar.
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9. A relief valve according to claim 6, wherein the oil seal is provided with a seal lip in an outer periphery of a cored bar.
10. A relief valve according to claim 7, wherein an outer diameter of the seal lip in a free state is larger than an inner diameter of the valve hole.
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11. A relief valve according to claim 8, wherein an outer diameter of the seal lip in a free state is larger than an inner diameter of the valve hole.
- 5 12. A relief valve according to claim 9, wherein an outer diameter of the seal lip in a free state is larger than an inner diameter of the valve hole.
- 10 13. A relief valve according to claim 7, wherein the cored rod constitutes a spring receiver for a relief spring which is brought into contact with the ball receiver so as to be aligned in an axial direction.
- 15 14. A relief valve according to claim 8, wherein the cored rod comprises a spring receiver for a relief spring which is brought into contact with the ball receiver so as to be aligned in an axial direction.
- 20 15. A relief valve according to claim 9, wherein the cored rod comprises a spring receiver for a relief spring which is brought into contact with the ball receiver so as to be aligned in an axial direction.
- 25 16. A relief valve according to claim 7, wherein a small diameter portion protrudes in a back surface side facing a side of the ball receiver with which the ball is brought into contact, and the oil seal is inserted and attached to a periphery of the small diameter portion so as to be borne.
17. A relief valve according to claim 16, wherein the cored rod has

a flange portion and a rising tubular portion, an outward surface of the flange portion is formed as a spring receiving surface for the relief spring, the small diameter portion of the ball receiver is inserted to an inner periphery of the rising tubular portion, and a leading end surface
5 of the rising tubular portion is brought into contact with the back surface of the ball receiver.

18. A relief valve according to claim 17, wherein the oil seal is structured such that a base portion of the seal lip is integrally formed
10 in the outer periphery of the rising tubular portion by a heat induced adhesion, and a leading end portion is expanded from an inward surface of the flange portion toward an oblique outer side.

19. A relief valve according to claim 18, wherein the oil seal is
15 structured such that a rising height in an axial direction in the leading end portion of the seal lip with respect to the flange portion of the cored rod is set lower than a rising height of the rising tubular portion with respect to the flange portion.

20. A relief valve according to claim 2, wherein the elastic body
20 seal is integrally formed around an annular portion in an outer peripheral side of one plate surface of the spring receiver and an outer peripheral portion, and is borne to the ball receiver such that the elastic body seal is integrally formed in the spring receiver.